VA Butler Healthcare
Butler, PA

Medical Center Memorandum MM-35
October 26, 2012

ANTICOAGULATION THERAPY MANAGEMENT PROGRAM

I. PURPOSE: To establish guidelines and outline the functions, responsibilities, and standard procedures for both the outpatient anticoagulation clinic, which serves to provide centralized follow-up and monitoring services for patients on either continuous or short-term anticoagulation therapy, and for residents on anticoagulants in the Community Living Center (CLC) at VA Butler Healthcare.

II. DEFINITIONS:

A. Ancillary Testing: Ancillary testing is defined as laboratory testing or services performed within a VA facility or its outreach functions (clinic, et al.) but outside the physical facilities of the main clinical laboratory. It is often referred to as point-of-care (POC) testing.

B. Anticoagulant: The term anticoagulant refers to a medication that inhibits blood coagulation. This includes, but is not limited to, warfarin, heparin, low-molecular weight heparin (LMWH), fondaparinux, dabigatran, and rivaroxaban.

C. Provider: The term provider may include any physician, nurse practitioner, physician's assistant, or pharmacist who has direct involvement in the care of the patient.

D. International Normalized Ratio (INR): INR is a standardized measure of the prothrombin time (PT), which is used to determine the clotting tendency of the blood. The INR is the ratio of a patient's PT to a normal (control) sample, raised to the power of the International Sensitivity Index (ISI) value for the reagent system used.

E. ISI: ISI is a measure of thromboplastin sensitivity to an international standard. Each lot number of thromboplastin used in prothrombin or INR testing is assigned its own unique ISI value from the manufacturer.

F. Parenteral Anticoagulant: A parenteral anticoagulant is defined as an anticoagulant that is given either subcutaneously or intravenously and includes, but is not limited to, heparin, LMWH, and fondaparinux.

G. Bridge Therapy: Bridge therapy is the temporary use of a short and immediate acting parenteral anticoagulant during periods when the INR level is subtherapeutic (e.g., when warfarin therapy is started) or when warfarin is being held in order to perform invasive procedures (peri-procedural bridging).

III. POLICY: The use and misuse of anticoagulant medications carries a significant potential for patient harm due to complex dosing, insufficient monitoring, and inconsistent patient compliance. This facility has established the anticoagulation policy to provide coordinated, safe, and effective evidence-based anticoagulation therapy management through assessment and manipulation of therapeutic response at appropriate intervals, systematic detection, and immediate intervention of therapeutic misadventures, as well as a rigorous effort to maintain a

well-informed, compliant patient.

IV. RESPONSIBILITY:

A. The Director is responsible for ensuring that this policy is implemented.

B. The Chief of Staff is responsible for ensuring that all clinical staff are in compliance with procedures delineated in this policy and VHA Directive 2010-020 Anticoagulation Therapy Management.

C. Care Line Managers/Service Chiefs are responsible for ensuring that staff under their supervision are in compliance with the procedures delineated in this policy and have competencies documented, where required.

D. The Chief of Pharmacy Service is responsible for ensuring that:

1. This policy and all procedures delineated for anticoagulation monitoring are implemented and followed.

2. The Clinical Pharmacists/Clinical Pharmacy Specialists practice within his/her scope of practice in accordance with this policy and the facility's by-laws.

E. The physician preceptor of the Anticoagulation Clinic is responsible for serving as a consultant to the Clinical Pharmacist/Clinical Pharmacy Specialist regarding complex patients and/or specific patient care issues.

F. The Anticoagulation Therapy Program Coordinator is responsible for ongoing monitoring of the facility's anticoagulant quality assurance plan and reporting results quarterly at the Pharmacy and Therapeutics Committee Meeting.

G. The Clinical Pharmacists/Clinical Pharmacy Specialists are responsible for:

1. Monitoring and managing outpatient anticoagulation therapy, as delineated under Procedures.

2. Monitoring and managing long-term care resident anticoagulation therapy as delineated under Procedures.

H. The Primary Care Provider is responsible for the comprehensive medical care of the patient, including initiating and discontinuing anticoagulation therapy when necessary (i.e. risk outweighs benefit, duration of therapy is completed) as delineated under Procedures.

I. The laboratory supervisor or designee is responsible for ensuring that adequate training on the POC machines has been provided for those who are performing POC testing.

V. PROCEDURES:

A. Outpatient Anticoagulation Management:

1. It is the policy of this facility that all outpatients on oral anticoagulation therapy (i.e. warfarin, dabigatran, rivaroxaban) who are managed at a VA Butler location where the services of the Anticoagulation Clinic are offered are consulted to, and followed by, the outpatient Anticoagulation Clinic. Patients may also be followed by the Home Care Anticoagulation Program if the patient is enrolled in Home Based Primary Care (HBPC).

a. Veterans receiving long-term parenteral anticoagulants, without concomitant oral anticoagulants, will continue to be followed closely by the provider prescribing the medication (i.e. the patient's PCP).

2. Warfarin Patients:

a. Outpatients will be referred to the Anticoagulation Clinic or the Home Care Anticoagulation Program using a Computerized Patient Record System (CPRS) electronic consult which will include: indication for anticoagulation, goal INR, duration of therapy, current anticoagulation dose, most recent or baseline INR result, baseline complete blood count (CBC) with platelets, and plans for cardioversion or ablation therapy when applicable.

(1) Prior to referring patients, providers should assess:

(a) Patient/caregiver ability to self-administer medication.

(b) Risk/benefit of anticoagulation in patients with a history of alcohol abuse, psychiatric disorders, dementia, falls, and/or other contraindications or precautions to anticoagulation.

(c) Prior to the initiation of therapy, referring providers will order baseline labs through the facility laboratory service. POC testing should not be utilized to obtain baseline lab values.

b. Co-management (dual-practice) of anticoagulation with a non-VA provider is prohibited, except for those patients who are enrolled in Fee ID/Aid & Attendance/Homebound programs. Such exceptions will be processed through and monitored by the Anticoagulation Clinic. If medications are to be dispensed from the VA Butler Healthcare Pharmacy or prescribed through the Anticoagulation Clinic all monitoring of anticoagulant therapies must be completed at VA Butler Healthcare or at one of its associated community-based outpatient clinics (CBOC). VA Butler Healthcare will not dispense a parenteral anticoagulant medication to a co-management patient requesting bridge therapy if the patient has not been following with this facility for management of their oral anticoagulant for at least one month. Only patients whose chronic anticoagulation therapy has been managed and monitored by facility staff will qualify to receive bridge therapy medications.

c. Except in extreme circumstances, INRs must be obtained at a Department of Veterans Affairs (VA) laboratory/clinic to ensure current values are readily accessible to healthcare staff.

(1) Non-VA laboratory results will be entered into the electronic medical record order for these results to be easily accessible to all staff. Documentation of the non-VA INR result must include the name of the laboratory where the test was performed, the date of the test, and the reference range on the test. Action following receipt of a non-VA laboratory result will include scanning of non-VA laboratory reports into the patient's medical record. Use Test Result note title with INR result in the subject line.

(2) For patients enrolled in the HBPC anticoagulation program blood draws for lab monitoring will be drawn by Home Care nursing staff in the patient's home. Home Care nursing staff will utilize POC testing for ongoing therapy and will document the results of the POC INR test electronically in the medical record and inform the Home Care pharmacist of POC results.

(3) Staff performing ancillary testing (e.g., POC INR testing) undergo competency assessment as defined in national and local Pathology and Laboratory Medicine Service Procedures (see VHA Handbook 1106.01).

d. Warfarin use will be limited as follows:

(1) Strengths of warfarin available for prescribing and administration will be limited to 2 mg and 5 mg tablets, with the occasional 1 mg tablets prescribed. Tablet splitting devices will be issued to all outpatients receiving warfarin therapy. Patients are discouraged from having more than one strength of warfarin at home to avoid confusion.

(2) Prescriptions for warfarin will be limited to 30 days with a maximum of one refill or a 60 day supply.

(3) Patients who wish to have their warfarin prescription filled at an outside pharmacy are not eligible to be managed by the VA Butler Healthcare Anticoagulation Clinic. All patients managed by the Anticoagulation Clinic must obtain their warfarin prescription through this facility.

e. The Anticoagulation Clinic provider will provide patient/caregiver education to include: warfarin tablet identification, indication for therapy, interactions (drug, diet, disease), daily dosage, monitoring requirements, importance of medication adherence and reporting for labwork, dangers of using warfarin from different sources (e.g., VA and community pharmacy), management of missed doses, signs/symptoms of bleeding and thromboembolic events, and risks of falling. At a minimum, education will be provided for all new warfarin starts and will be ongoing during all follow-up appointments with the Anticoagulation Clinic.

f. Patients should have their blood drawn on the date and time designated by each provider or Anticoagulation Clinic. Ongoing INR testing will be conducted using POC testing where available. A venous INR will be completed by the laboratory if POC is not available. If the POC INR is greater than or equal to 4.5, a venous INR will be drawn.

(1) It will be implicit, as a policy laboratory order, that in all scheduled visits for

ongoing warfarin management (i.e., visits where the patient is not being newly started on warfarin anticoagulation therapy), a POC INR will be obtained from the patient without the need of a provider placing a per-patient electronic order.

(2) For visits at the main VA Butler Healthcare facility, the "Charge" pharmacist for that day's clinic will be listed as the provider for the POC INR.

(3) For visits occurring at community clinics via video, the pharmacist seeing patients in clinic for that day will be listed as the provider for the POC INR.

(4) Venous blood draws will require the requesting pharmacist provider to place a laboratory order for a venous INR under their own name.

g. After INR results are available, the patient/caregiver will be interviewed by the Anticoagulation Clinic provider or Home Care pharmacist. The provider will enter an electronic progress note using the agreed upon anticoagulation format. The progress note will be titled PHARMACY ANTICOAGULATION to allow immediate recognition of the subject. The warfarin dose is continued or adjusted based on the patient's INR, clinical condition, and recent medication or dietary changes. Every effort is made to investigate why a patient's INR is not therapeutic before dose adjustment is initiated. In general, the maintenance dose of warfarin is adjusted by 5-20 percent of the patient's weekly warfarin dose when the INR is consistently out of range and noncompliance is not suspected. The provider must edit or renew the patient's warfarin prescription accordingly. In lieu of adjusting the maintenance warfarin dose, the provider may hold or give supplemental doses of warfarin at their discretion. The degree to which the INR is out of range will impact the provider's judgment.

h. All INRs must be reviewed and clinically evaluated no later than close of business the next business day.

i. All patients are assessed using the same basic criteria regardless of INR results, with special emphasis on current or potential problems. The criteria includes:

(1) Signs and symptoms of thromboembolic events or bleeding;

(2) Recent changes in diet, alcohol consumption, and/or tobacco use;

(3) Changes in prescription medications, over-the-counter medications, herbal/supplement use, or antibiotic use;

(4) Compliance to the medication regimen;

(5) Recent falls, hospitalizations, emergency room, or physician visits;

(6) Any acute changes in the patient's health status since last visit; and

(7) Whether warfarin is still indicated.

j. Frequency of monitoring:

(1) New starts: Baseline, then every few days initially, then every 1-2 weeks until INR is stable. This also applies to patients who are restarted on warfarin therapy after an interruption in therapy (e.g., patients on bridge therapy for a procedure). A baseline/initial INR must be documented in CPRS prior to the patient being prescribed warfarin therapy by this facility, regardless of whether the patient is already taking warfarin prescribed by an outside provider.

(2) Stable patients: Monitoring for warfarin should be performed at least every 4 weeks; however, in extenuating circumstances (e.g., transportation or weather problems), INR monitoring may occur at a 6 week intervals. INR monitoring should not occur any less frequently than at an interval of every 6 weeks.

(3) A CBC with platelets should be monitored at least yearly for patients prescribed warfarin.

(4) Patients on bridge therapy must have a CBC and serum creatinine drawn at baseline (within the past 30 days). A CBC should also be drawn at least weekly with the INR while the patient remains on the parenteral anticoagulant being utilized for bridge therapy.

k. After the Anticoagulation Clinic provider or Home Care pharmacist determines a follow-up appointment date, the provider or designee schedules the appointment into CPRS. Patients are given dosing/appointment cards.

l. No-shows/Missed Appointments: If a patient misses a scheduled clinic visit or laboratory appointment, adequate follow-up will be ensured by taking the following steps:

(1) Telephone call(s) to the patient to reschedule as soon as possible.

(2) If a patient cannot be reached by phone, a letter will be mailed to the patient requesting the patient to contact the Anticoagulation Clinic to arrange a new appointment date.

(3) A total of three (3) attempts, including a letter, will be made to contact the patient to reschedule with the Anticoagulation Clinic.

(4) Primary care providers will be alerted of consecutive missed appointments (two or more). The physician preceptor/collaborator will also be alerted to consecutive missed appointments (three or more).

(5) Repetitive no-shows may result in discharge from the outpatient Anticoagulation Clinic.

(6) A list of patient cancellations/no-shows is set to print on a daily basis. This daily list will contain the patient cancellations/no-shows from the previous day and will be reviewed each business day by an Anticoagulation Clinic provider who will then contact the patient to reschedule them for follow-up. This has been done to help ensure that no patient on

anticoagulants is lost to follow-up.

m. Vitamin K Administration: Vitamin K is not routinely given for elevated INRs without bleeding; however, it will be prescribed for the patient when clinically necessary. Providers are referred to the most recent CHEST guidelines for direction. If vitamin K administration is felt to be necessary the Anticoagulation Clinic provider will consult with the physician preceptor. If the physician preceptor is in agreement with the administration of vitamin K the Anticoagulation Clinic provider may write an order for a one-time dose of vitamin K to be filled by the pharmacy.

(1) If the patient is at a CBOC when vitamin K is needed the anticoagulation clinic provider will contact a provider at the CBOC to write a prescription for vitamin K to be filled at a local pharmacy through the Heritage Health Program.

n. Perioperative/Periprocedural Anticoagulation: The provider who is responsible for the procedure, in conjunction with the patient's primary care provider, is responsible for determining the patient's bridge therapy needs. The primary care provider or Anticoagulation Clinic provider are responsible for ordering the proper quantity and dose of parenteral anticoagulants and clinic nursing personnel are responsible for educating patients on the correct administration of these parenteral agents. A consult to the Anticoagulation Clinic will be completed by the patient's primary care provider to alert clinic staff of the upcoming procedure so that appropriate follow-up can be scheduled.

(1) It is required that patients have their chronic oral anticoagulation therapy managed and monitored at this facility in order to receive parenteral anticoagulants for bridge therapy from VA Butler Healthcare.

(2) If a patient chooses to be enrolled in the Anticoagulation Clinic for long-term management of their chronic oral anticoagulant with the intent of obtaining a parenteral anticoagulant for bridge therapy in the near future he/she must be enrolled in the Anticoagulation Clinic for at least one month prior to the upcoming procedure so that the clinic may become familiar with the patient's anticoagulation history and care.

(3) Patients will not be allowed to enroll in the Anticoagulation Clinic for short-term management of their chronic oral anticoagulation therapy solely for the purpose of obtaining a parenteral anticoagulant for bridge therapy.

o. Medical Consultation: The Anticoagulation Clinic will seek medication consultation with the physician preceptor or patient's primary care provider if the patient experiences:

(1) Signs/symptoms suggestive of a thromboembolic event.

(2) An acute change in mental status.

(3) Prolonged or copious hemoptysis, persistent large nosebleeds despite a

therapeutic INR, bright red blood without straining or black tarry stools, hematuria.

(4) A large bruise with swelling.

(5) An acute change in health status.

(6) An INR of < 1.5 in a patient with a mechanical mitral valve replacement or an INR of < 1.3 in a patient with a mechanical aortic valve replacement.

(7) An INR of < 1.5 and the patient is < one month out from a new deep vein thrombus (DVT) or pulmonary embolism (PE) (provided they are not on bridge therapy).

(8) The patient is on parenteral therapy and platelets decrease from baseline by 50 percent or fall to < 100,000.

(9) The INR is > 6 and unexplained, patient is a high bleed risk, or patient is very frail.

(10) The patient has completed a predetermined length of therapy.

(11) The risk vs. benefit of continued warfarin therapy is questioned.

(12) The use of vitamin K is under consideration.

p. A list of recently ordered medications that have the potential to interact with anticoagulants has been set to automatically print on a daily basis. When a drug that may interact with anticoagulants is ordered by a provider for a patient on anticoagulants the drug name and patient name will be indicated on this list the following day. This list will be reviewed each business day by an Anticoagulation Clinic provider who will then determine if anticoagulant dose adjustments and/or follow-up laboratory tests are needed.

q. Patient Discharges: The patient's primary care provider will be informed when a patient is discharged from the Anticoagulation Clinic. Patients may be discharged from the Anticoagulation Clinic for any of the following reasons:

(1) The patient continues to drink alcohol and the level of anticoagulation remains unacceptable despite the practitioner's best efforts and repeated education.

(2) The patient repetitively misses consecutively scheduled clinic appointments due to noncompliance.

(3) The patient refuses medical follow up at this facility.

(4) The patient refuses or is unwilling to follow instructions regarding anticoagulants as provided by the Anticoagulation Clinic.

(5) The patient has a non-VA physician who remains actively involved in his/her anticoagulation therapy (e.g., changes the patient's warfarin dose). In this case, the patient will be informed that his/her warfarin prescription will be canceled, and the patient will need to purchase warfarin outside the VA and anticoagulation therapy must be monitored by a non-VA physician.

(6) The patient is noncompliant despite the practitioner's best efforts and documentation of changing this habit.

r. All outpatients on anticoagulant therapy will have a 'V' code that denotes "Long-term (current) use of anticoagulants" or "Anticoagulation" on their problem list (V58.61).

3. Dabigatran and Rivaroxaban Patients:

a. Outpatients will be enrolled into the Anticoagulation Clinic or the Home Care Anticoagulation Program after a non-formulary consult for dabigatran or rivaroxaban has been reviewed and approved by the non-formulary committee. All non-formulary consults are entered as a CPRS electronic consult for these agents.

b. An Anticoagulation Clinic provider will provide patient/caregiver education to include: capsule/tablet identification, proper storage of medication, indication for therapy, dosing instructions, drug interactions, monitoring requirements, importance of medication adherence, the management of missed doses, signs and symptoms of bleeding and thromboembolic events, non-bleeding adverse events, risks associated with falling, and the need to notify anticoagulation provider if scheduled for a procedure. At a minimum, education will be provided for all new starts and will be ongoing during all follow-up appointments with the Anticoagulation Clinic.

c. Frequency of monitoring:

(1) Baseline tests that should be available prior to initiating treatment include: CBC with platelets, serum creatinine (SCr) to estimate creatinine clearance (CrCl), and ideal body weight (for estimate of CrCl).

(2) Follow-up monitoring should include CBC with platelets and SCr (to estimate CrCl). This will be completed at approximately two weeks, one month, three months, and then every six months thereafter if labs remain stable. Lab work may be monitored more frequently in patients with increased bleeding risk or renal impairment. For patients with a history of or suspicion for liver disease, liver function testing may be considered.

d. Patients should have their blood drawn on the date and time designated by each provider or Anticoagulation Clinic.

e. Except in extreme circumstances, lab work must be obtained at a Department of Veterans Affairs (VA) laboratory/clinic to ensure current values are readily accessible to healthcare staff. For patients enrolled in the HBPC Anticoagulation Program, blood draws for lab monitoring will be drawn by Home Care nursing staff in the patient's home.

f. After lab work results are available, the patient/caregiver will be interviewed by the Anticoagulation Clinic provider or Home Care pharmacist to assess for adherence, tolerance of medication, and signs and symptoms of bleeding or a thromboembolic event. The provider will enter an electronic progress note using the agreed upon format. The progress note will be titled PHARMACY ANTICOAGULATION to allow immediate recognition of the subject.

g. All lab work must be reviewed and clinically evaluated no later than close of business the next business day.

h. No-shows/Missed Appointments: If a patient misses a scheduled clinic visit or laboratory appointment, adequate follow-up will be ensured by taking the following steps:

(1) Telephone call(s) to the patient to reschedule as soon as possible.

(2) If a patient cannot be reached by phone, a letter will be mailed to the patient requesting the patient to contact the Anticoagulation Clinic to arrange a new appointment date.

(3) A total of three attempts, including a letter, will be made to contact the patient to reschedule with the Anticoagulation Clinic.

(4) Primary care providers will be alerted of consecutive missed appointments (two or more). The physician preceptor/collaborator will also be alerted to consecutive missed appointments (three or more).

(5) Repetitive no-shows may result in discharge from the outpatient Anticoagulation Clinic.

i. Medical Consultation: The Anticoagulation Clinic will seek medication consultation with the physician preceptor or patient's primary care provider if the patient experiences:

(1) Signs/symptoms suggestive of a thromboembolic event.

(2) An acute change in mental status.

(3) Prolonged or copious hemoptysis, persistent large nosebleeds despite a therapeutic INR, bright red blood without straining or black tarry stools, hematuria.

(4) A large bruise with swelling.

(5) An acute change in health status.

(6) A significant decrease in the patient's CrCl that would necessitate a change in the patient's dose of medication or a contraindication to use of the medication.

(7) Anemia develops (hemoglobin level < 10 g/dL).

(8) Thrombocytopenia develops (platelet count < 100,000/uL).

(9) The patient has completed a predetermined length of therapy.

(10) The risk vs. benefit of continued therapy is questioned.

(11) The patient develops known significant liver disease (e.g., acute clinical hepatitis, chronic active hepatitis, cirrhosis, Liver Function Test (LFT) elevations greater than 2x the upper limit of normal).

j. Patient Discharges: The patient's primary care provider will be informed when a patient is discharged from the Anticoagulation Clinic. Patients may be discharged from the Anticoagulation Clinic back to their primary care team for anticoagulation management for any of the following reasons:

(1) The patient repetitively misses consecutively scheduled lab/clinic appointments due to noncompliance.

(2) The patient refuses medical follow up at this facility.

(3) The patient refuses or is unwilling to follow instructions regarding anticoagulants as provided by the Anticoagulation Clinic.

(4) The patient is noncompliant despite the practitioner's best efforts and documentation of changing this habit.

k. All outpatients on anticoagulant therapy will have a 'V' code that denotes "Long-term (current) use of anticoagulants" or "Anticoagulation" on their problem list (V58.61).

4. Parenteral Anticoagulant Patients:

a. Patients who are prescribed a parenteral anticoagulant without concomitant oral anticoagulant therapy (i.e. not on bridge therapy) are to be followed and monitored by the provider who prescribed the anticoagulant (i.e. PCP). For outpatients only subcutaneous heparin, LMWH, and fondaparinux may be prescribed.

(1) Patients on LMWH or fondaparinux will have a baseline CBC with platelets and serum creatinine (within the last 30 days). Patients will also have a documented weight. Patients should have a CBC with platelets and serum creatinine completed periodically throughout treatment at a minimum of once monthly if they are to receive LMWH or fondaparinux for more than 14 days.

(2) Patients on a long-term parenteral anticoagulant only must have a "MED-LMWH AND FONDAPARINUX" template entered into CPRS prior to dispensing the parenteral anticoagulant prescription if receiving the medication for more than 14 days.

(3) All of the following areas of the "MED-LMWH AND FONDAPARINUX" template must be filled out prior to dispensing:

(a) New start or ongoing use.

(b) Medication and dose being prescribed.

(c) Indication.

(d) Any adverse events reported.

(e) Pertinent lab information.

(f) Plan.

(4) No orders for LMWH or fondaparinux will be verified by a VA pharmacist if any information is missing from the "MED-LMWH AND FONDPARINUX" template or if a template has not been completed. These orders will be referred back to the PCP for completion of the required template.

(5) All LMWH and fondaparinux prescriptions are ordered for a maximum of a 30 day supply with no refills.

b. Heparin use will be limited as follows:

(1) Heparin vials are to be only stocked in the pharmacy. Heparin vials will not be included in ward stock.

(2) Heparin IV boluses and infusions will not be used at VA Butler Healthcare or at any of its clinics.

(3) The concentration of heparin vials used is limited to 5,000 international units per milliliter.

(4) Only single dose products are used. No multi-dose heparin products are available at this facility.

(5) Prescribing and monitoring of subcutaneous heparin regimens will be the responsibility of the Primary Care or Attending Provider.

(6) Patients ordered subcutaneous heparin therapy must have a CBC with platelets and activated partial thromboplastin time (aPTT), prior to initiation of therapy.

(7) Regular monitoring should include hemoglobin (HGB), hematocrit (HCT), platelet count, and aPTT.

B. Long-Term Care Anticoagulation Management:

1. The initiation of anticoagulation therapy for residents of the CLC will be the responsibility of the admitting or attending provider. This includes the responsibility for writing the initial warfarin and/or parenteral anticoagulant order for the resident as well as entering a Pharmacy Anticoagulation Consult for pharmacy to manage ongoing anticoagulation therapy. When writing the initial warfarin and/or parenteral anticoagulant order, the admitting provider should keep in mind that consults entered on Friday may not be seen by pharmacy until Monday. Thus, the provider should make certain that the initial warfarin and/or parenteral anticoagulant order does not result in missed doses of the medication.

2. The Clinical Pharmacists/Clinical Pharmacy Specialists are responsible for ongoing management of residents on oral anticoagulation therapy following the initiation of therapy by the admitting or attending provider.

3. Oral unit dose products and pre-filled syringes will be used when these products are available.

4. All anticoagulant products stored in automated dispensing devices (Pyxis machines) will be stored separately by drug, strength, and formulation. They will also be labeled as high-alert.

5. The dietary needs of all residents receiving warfarin will be reviewed by the unit dietitian, after notification via notifications/alerts in CPRS/VistA according to MCM MM-11, Drug Nutrient Interaction Patient Education.

6. Prior to discharge the attending provider will arrange for patients to have anticoagulation follow-up as an outpatient in order to ensure coordinated transition from the CLC to outpatient status.

C. Quality Assurance:

1. The use of anticoagulation will be monitored to ensure safe practices. The facility will monitor and report to the Pharmacy and Therapeutics Committee:

a. Supra-therapeutic INRs (above the critical value).

b. Appropriate action has been taken on critical INRs within 24 hours of INR testing and documentation of action(s) taken.

c. Bleeding events.

d. Thromboembolic events.

e. Sub-therapeutic INRs.

f. Patient incidents, close-calls, and near misses associated with anticoagulant medications.

2. Anticoagulation Competencies and Credentialing:

a. Clinical staff members who are not Licensed Independent Practitioners (LIP) but provide anticoagulation therapy management under a Scope of Practice must undergo experiential training in the Anticoagulation Clinic under the guidance of one or more experienced, credentialed practitioner(s).

b. To certify competency, a written exam will be conducted as a part of experiential training. All questions on the exam must be answered completely and accurately.

c. Written exams will be assessed by a credentialed practitioner and returned to the trainee for correction. A total of two revisions will be allowed (three total attempts) for all questions to be answered correctly. Trainees who are unable to achieve complete success at the end of three exam attempts will be reassessed for suitability to safely provide anticoagulation therapy management and recommended to be remediated or reassigned on an individual basis to ensure patient safety.

d. The final step in certifying competency will be a verbal exam to be administered by an experienced and credentialed practitioner. Upon satisfactory completion of the verbal exam, the staff member will be deemed certified to practice independently within the Anticoagulation Clinic under the guidance of the Anticoagulation Policy.

e. Re-credentialing of non-LIP anticoagulation providers will occur annually:

(1) Anticoagulation therapy education will be completed annually by clinical staff directly involved in caring for patients receiving anticoagulation therapy. Education should include both general anticoagulation guidance/best practices and targeted issues raised by the facility's Anticoagulation QA program at the direction of the Anticoagulation Clinic Physician Preceptor.

(2) Electronic training offered through Talent Management System (TMS) regarding anticoagulation therapy must be documented annually.

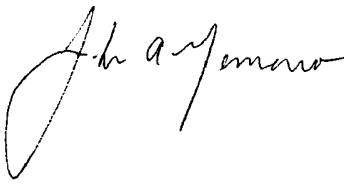
(3) To qualify for re-credentialing and continue to practice, practitioners must have worked for at least two months in an anticoagulation therapy management role in the past year, unless there are extenuating circumstances (e.g., maternity leave, extended sick leave, staffing issues, etc.)

VI. REFERENCES:

VHA Directive 2010-020, Anticoagulation Therapy Management, dated May 14, 2010.
The Joint Commission, 2012 National Patient Safety Goals; NPSG.03.05.01.

Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. CHEST. February 2012; 141 (2 suppl) 1S-801S.

VII. RESCISSION: Medical Center Memorandum MM-35, dated March 1, 2010.



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